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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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24272	7590	04/06/2006	EXAMINER	
Gregory J. Koerner Redwood Patent Law 1291 East Hillsdale Boulevard Suite 205 Foster City, CA 94404			VIEAUX, GARY	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/780,665	Applicant(s) FISHER ET AL.	
	Examiner Gary C. Vieaux	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 27 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 10-25, 28 and 30-47 is/are rejected.
- 7) ☒ Claim(s) 6, 9, 26, 29, 48 and 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notification of Art Unit Change

Beginning in February 2006, Technology Center 2600, to which Art Unit 2612 belongs, began operating under a new structure in which the original 55 art units were consolidated into 17 art units. The applications and classifications covered by Art Unit 2612 are now the responsibility of Art Unit 2622. This change currently applies to the instant application, and therefore, all future correspondence should be directed to Art Unit 2622. Contact information is provided in the last section of this communication.

Amendment

The Amendment filed March 3, 2006 has been received and made of record. In response to the Non-Final Office Action dated December 1, 2005, claims 1-2, 5-6, 9-11, 19-22, 25-26, 29-31, and 39-41 have been amended. Claims 43-49 have been added.

Response to Arguments

Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 41, Applicant asserts (p. 24, Response of March 3, 2006) that the steps of the claim taking the form of a computer-readable medium are not taught. The Examiner respectfully disagrees. Anderson is provided to teach putting operational steps, in the form of program instructions, onto a computer readable medium (col. 13 lines 33-54, col. 14 lines 25-43.) It would have been obvious to one of ordinary skill in

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the art at the time of the invention to transfer the steps as taught by Dunton and Chen (now Dunton and Miyatake), which are effectuated by processors within programmed devices, and due to their processor based execution, are employed as programmed instructions, onto a computer readable medium comprising program instructions as taught by Anderson, so that they may be loaded as firmware onto a device to update or restore device functionality without having to update or replace device hardware.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for implementing the steps via a computer readable medium is a motivation that is generally available to one of ordinary skill in the art. Based on the foregoing, the Examiner respectfully upholds a 35 U.S.C. § 103(a) rejections to claim 41.

Regarding claim 42, Applicant asserts (p. 15, Response of March 3, 2006) that claim 42 is not anticipated or made obvious by the teachings of Dunton. Again, the Examiner maintains the prior rejection of the original claim 42. As previously provided in the Final Action dated June 2, 2005, and the Non-Final Action after a Request for Continued Examination dated December 1, 2005:

The language of claim 42 is as follows: "A system for creating a still image of a target object by utilizing a video camera, comprising: means for transporting said video camera across said target object during a scanning procedure; means for analyzing scan motion data from said scanning procedure; and means for generating still frames corresponding to said target object.

First, the Specification provides means for transporting said video camera across said target object during a scanning procedure that includes a reflective device that "may be utilized to perform a scanning procedure (p. 12 lines 5-9), as well as expressly providing for alternative embodiments that "may readily include various other components and functionalities in addition to, or instead of, those components and functionalities discussed in conjunction with the FIG. 5 embodiment" (p. 5 lines 8-11), and may be implemented using any other configuration (p. 12 lines 1-2.)

Correspondingly, the Dunton reference provides means for transporting said video camera across said target object during a scanning procedure (col. 4 lines 49-64) that includes transporting a camera across a target via rotational movement, the employs a mirror to record surrounding images (also see Fig. 3A.) Second, the Specification provides means for analyzing scan motion data from said scanning procedure that includes a control module incorporating a CPU that may be implemented to include any appropriate microprocessor device (p.8 lines 14-24), as well as expressly allowing for a control module that "may readily include various other components in addition to, or instead of, those components discussed in conjunction with the FIG. 3 embodiment" (p. 8 lines 20-22.) Correspondingly, the Dunton reference provides means for analyzing

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scan motion data from said scanning procedure (col. 6 lines 20-23) that includes a processor or processing unit. Finally, the Specification provides means for generating still frames corresponding to said target object that includes a control module incorporating a CPU to process still frames of video data into a corresponding still image (p.8 lines 14-24; p. 9 lines 1-26.) Correspondingly, the Dunton reference provides means for generating still frames corresponding to said target object (col. 4 lines 26-30) that includes a processing unit that combines images from a video camera into a single image.

Based on the foregoing comparisons, it is demonstrated that each of the limitations of the instant application, as claimed and written, are also found within the Dunton reference, and therefore the 35 USC 102(e) rejection to claim 42 is maintained by the Examiner.

Claim Objections

Claim 9 is objected to because of the following informalities: claim 9 recites the limitation "said scan parameters" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 46 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 46 includes the limitation regarding an overlap area "that is less than a quarter of a frame size if the still frames" (Amendment p. 13, lines 2-3 of claim 46.) After review of the Specification, support for this limitation was not found to be included.

For the purposes of claim examination, claim 46 will be examined on its merits without consideration given to this limitation until such support is demonstrated.

Claims 10, 20, 30, 40, and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Dependent claims 20, 40, and 45 fail to further limit the subject matter of the independent claims from which dependence is derived. Independent claims 1 and 21 recite a video camera that is transported across a target object. However, dependent claims 20, 40, and 46 each call for a video camera that is stationary; this is a limitation that is in direct conflict with the independent claim from which dependence is derived and makes the claims indefinite in their understanding.

Dependent claims 10 and 30 fail to further limit the subject matter of the independent claims from which dependence is derived. Independent claims 1 and 21 recite capturing a contiguous frame sequence of video data corresponding to the target object. However, dependent claims 10 and 30 each call for capturing key said video data using a key frame format; this is a limitation that is in direct conflict with the independent claim from which dependence is derived and makes the claims indefinite in their understanding.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 42 is rejected under 35 U.S.C. 102(e) as being anticipated by Dunton et al. (US 6,304,284.)

Regarding claim 42, Dunton teaches a system for creating a still image of a target object by utilizing a video camera, comprising: means for transporting said video camera across said target object during a scanning procedure (col. 4 lines 49-64); means for analyzing scan motion data from said scanning procedure (col. 6 lines 20-

23); and means for generating still frames corresponding to said target object (col. 4 lines 26-30.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 19-24, 39-40, and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US 6,304,284) in view of Miyatake et al. (US 6,466,262.)

Regarding claim 1, Dunton teaches a system for creating a still image of a target object by utilizing a video camera, comprising: a support device (col. 4 lines 49-57) configured to transport said video camera (col. 2 lines 22-23) across said target object during a scanning procedure (fig. 1A; col. 2 lines 50-53) to capture a contiguous frame sequence of video data corresponding to said target object (capture of a contiguous frame sequence of video data is inherent to the operation of a video camera), and a scanning manager coupled to said video camera for analyzing scan motion data from said scanning procedure, and responsively generating still frames corresponding to said target object to form a composite image (fig. 1A indicator 140; col. 4 lines 25-34). However, Dunton does not disclose responsively extracting still frames from said contiguous frame sequence at a selectable time interval to represent the target object

as a still image, said selectable time interval being greater than a standard video frame duration from said contiguous frame sequence.

Nevertheless, Miyatake teaches a camera that extracts still frames from a contiguous frame sequence at a selectable time interval to represent the target object as a still image, with the selectable time interval being greater than a standard video frame duration from the contiguous frame sequence (col. 4 lines 13-24.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the selectable time interval as taught by Miyatake within the design of the system as taught by Dunton, to reduce unnecessary amounts of images/frame overlap.

Regarding claim 2, Dunton and Miyatake disclose all of the limitations of claim 2 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein a stitching software program combines said still frames to produce said still image, said stitching software program residing on an external computer device ('284 – col. 4 lines 25-34, col. 6 line 20 – col. 7 line 16.)

Regarding claim 3, Dunton and Miyatake disclose all the limitations of claim 3 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein said target object includes one of a document, a photographic image, a physical object, a graphics image, and a geographic location ('284 – fig. 1A.)

Regarding claim 4, Dunton and Miyatake disclose all the limitations of claim 4 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein a motion detector generates said scan motion data by monitoring said support device

during said scanning procedure, said scan motion data including a scan speed and a scan direction ('284 – col. 3 lines 26-28, col. 4 lines 57-62.)

Regarding claim 19, Dunton and Miyatake disclose all the limitations of claim 19 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein said video camera performs a concurrent combination procedure, for concurrently combining a series of said still frames to generate said still image ('284 – col. 6 line 20 – col. 7 line 51, that describes a process, which in the case of a series containing only 2 still frames, would occur concurrently.)

Regarding claim 20, Dunton and Miyatake disclose all the limitations of claim 20 (see the 103(a) rejection to claim 1 supra), including disclosing a system wherein said scanning procedure is performed by a moving target object process in which the camera is stationary (§112 issues aside, '284 – fig. 3A discloses a stationary camera that utilizes a moving scanning reflector element.)

Regarding claims 21-24 and 39-40, although the wording is different, the material is considered substantively equivalent to claims 1-4 and 19-20, respectively, as discussed above.

Regarding claim 43, Dunton and Miyatake disclose all the limitations of claim 43 (see the 103(a) rejection to claim 21 supra), including disclosing wherein a stitching program combines said still frames to produce said still image, said stitching software program residing on said video camera ('262 – col. 4 lines 38-41.)

Regarding claim 44, Dunton and Miyatake disclose all the limitations of claim 44 (see the 103(a) rejection to claim 21 supra), including disclosing wherein said video

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camera performs a reiterative combination procedure that repeatedly combines an immediately- preceding one of said still frames and a current one of said still frames to generate said still image ('284 – col. 6 line 20 – col. 7 line 51.)

Regarding claim 45, Dunton and Miyatake disclose all the limitations of claim 45 (see the 103(a) rejection to claim 21 supra), including disclosing wherein said scanning procedure is performed by a stationary-camera/stationary-target process that utilizes a moving scanning reflector element with a stationary video camera and a stationary target (§112 issues aside, '284 – fig. 3A.)

Regarding claim 46, Dunton and Miyatake disclose all the limitations of claim 46 (see the 103(a) rejection to claim 21 supra), including disclosing wherein said selectable time interval extracts said still frames with an overlap area ('284 – col. 3 lines 45-46, col. 6 line 20 – col. 7 line 2; '262 – col. 7 line 14 – col. 8 line 6 in which an overlap area is inherently necessary in order to calculate pixel shift.)

Regarding claim 47, Dunton and Miyatake disclose all the limitations of claim 47 (see the 103(a) rejection to claim 21 supra), including disclosing wherein said still frames are precisely aligned without any overlap area ('284 –col. 6 lines 58-62.)

Claims 5, 8, 11, 14, 25, 28, 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US 6,304,284) and Miyatake et al. (US 6,466,262), in further view of Kaye (US 5,497,188.)

Regarding claim 5, Dunton and Miyatake disclose all the limitations of claim 5 (see the 103(a) rejection to claim 1 supra), except for a direct teaching a system

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wherein said support device includes a cradle that is initially positioned at a starting index of a scan track to allow said video camera to frame said target object using at least one of a focus mechanism and a zoom mechanism. However, Dunton does teach the camera being initially positioned at a starting index of a scan track ('284 – col. 4 lines 35-48), the camera moved in a lateral direction by a motor driven apparatus ('284 – col. 4 lines 51-54), and the system using focusing information from the lens ('284 – col. 3 lines 42-43; col. 4 lines 26-30.)

Nevertheless, Kaye teaches a similar camera system wherein said support device includes a cradle (fig. 1 indicator 40) and as well a proper focusing and zooming prior to image capturing (col. 9 lines 29-41.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cradle and camera operation as taught by Kaye, with the system as taught by Dunton and Miyatake. One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings so that stable camera operation could begin in a state which provides a point of reference for later image manipulation, as well as in a state where the images may be captured clearly, and within a desired magnification.

Regarding claim 8, Dunton, Miyatake and Kaye disclose all the limitations of claim 8 (see the 103(a) rejection to claim 5 supra), including teaching a system wherein said cradle begins traveling along said scan track during said scanning procedure, said video camera responsively beginning to capture and store video data that corresponds to said target object ('188 – col. 9 lines 33-46; '284 – fig. 2 and col. 4 lines 35-67.)

Regarding claim 11, Dunton, Miyatake and Kaye disclose all the limitations of claim 11 (see the 103(a) rejection to claim 8 supra), including a teaching a system wherein a motion detector captures scan motion data corresponding to movements of said video camera, said motion detector providing said scan motion data to said scanning manager of said video camera, said scan motion data including a scan speed and a scan direction ('284 – col. 4 lines 25-34 and 49-62.)

Regarding claim 14, Dunton, Miyatake and Kaye disclose all the limitations of claim 14 (see the 103(a) rejection to claim 11 supra), including a teaching a system wherein said scanning manager extracts an initial still frame of said target object from said video data that is captured by said video camera during said scanning procedure ('284 – col. 6 lines 20-25; col. 7 lines 35-43.)

Regarding claims 25, 28, 31, and 34, although the wording is different, the material is considered substantively equivalent to claims 5, 8, 11, and 14, respectively, as discussed above.

Claims 12 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US 6,304,284), Miyatake et al. (US 6,466,262) and Kaye (US 5,497,188) as applied to claims 11 and 31 above, and further in view of Sussman et al. (US 4,793,812.)

Regarding claim 12, Dunton, Miyatake and Kaye teach all the limitations of claim 12 (see the 103(a) rejection to claim 11 supra), except for a direct teaching of a system wherein said motion detector generates said scan speed by monitoring a rotational

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velocity sensor for at least one wheel upon which said cradle travels during said scanning procedure. However, Kaye does teach at least one wheel upon which said cradle travels during said scanning procedure that receives motion control that is related to camera position (col. 9 lines 43-45.) Additionally, Sussman teaches monitoring of rotational velocity of rollers to determine scan speed (col. 5 lines 16-26; col. 6 lines 24-31.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor a rotational velocity sensor for at least one wheel during a scanning procedure as taught by Sussman, in conjunction with the motion detector of the system as taught by Dunton, Miyatake and Kaye. One of ordinary skill in the art at the time of the invention would have been motivated to combine these teachings in order to correlate the scan speed with the actual speed of the camera as it moves, so that the images are acquired at appropriate timing and the required amount of overlap between scanned images is achieved. The monitored information may also be employed in the later stitching process to associate concurrent images, without requiring the matching of key points on the images.

Regarding claim 32, although the wording is different, the material is considered substantively equivalent to claim 12 as discussed above.

Claims 13, 15-18, 33, and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US 6,304,284), Miyatake et al. (US 6,466,262) and Kaye (US 5,497,188) as applied to claim 11 above, and further in view of Bohn et al. (US 6,002,124.)

Regarding claim 13, Dunton, Miyatake and Kaye teach all the limitations of claim 13 (see the 103(a) rejection to claim 11 supra), except for directly teaching a system wherein said scan speed is expressed by a formula:

$$\text{Scan Speed} = \text{Non-Overlapped Scan Distance} / \text{Time Interval}$$

where said Non-Overlapped Scan Distance is a length of a non-overlapped region of an immediately-preceding still frame prior to a start of a current still frame, and said Time Interval is a length of time required by said cradle to transport said video camera across said Non-Overlapped Scan Distance to said start of said current still frame. Nevertheless, Bohn teaches scanning of an image to be stitched, where the scan speed is equated in relation to the sampling time of a frame and overlap between frames (col. 11 lines 44-58.) In light of the teachings in Bohn, it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate scan speed via overlap distance in relation to time, within the system as taught by Dunton, Miyatake and Kaye, in order to properly relocate the camera between images.

Regarding claim 15, Dunton, Miyatake and Kaye teach all the limitations of claim 15 (see the 103(a) rejection to claim 14 supra), except for directly teaching a system wherein said scanning manager extracts a current still frame of said target object from said video data at a pre-determined time interval during said scanning procedure. Nevertheless, Bohn teaches scanning of an image to be stitched, in which a current still frame of a target object to be scanned is extracted at a pre-determined time interval during said scanning procedure (col. 11 lines 44-48.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the

sampling interval as taught by Bohn, within the scanning manager of the system as taught by Dunton, Miyatake and Kaye. One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings so that the images later employed in the stitching process will possess the requisite amount of overlap.

Regarding claim 16, Dunton, Miyatake, Kaye, and Bohn teach all the limitations of claim 16 (see the 103(a) rejection to claim 15 supra), including a teaching a system wherein said scanning manager determines an overlap region between said initial still frame and said current still frame by referencing said scan motion data ('284 col. 4 line 49 – col. 5 line 21.)

Regarding claim 17, Dunton, Miyatake, Kaye, and Bohn teach all the limitations of claim 17 (see the 103(a) rejection to claim 16 supra), including a teaching a system wherein said scanning manager calculates an overlap length for said overlap region according to a formula:

Overlap Length=Still Frame Length-Non-Overlapped Scan Distance

where said Overlap Length is a distance from a start of said overlap region to an end of said overlap region, said Non-Overlapped Scan Distance is a length of a non-overlapped region of said initial still frame prior to a start of said current still frame, and Still Frame Length is a constant length of one of said still frames ('284 col. 4 line 49 – col. 5 line 6; col. 6 line 43 – col. 7 line 16.)

Regarding claim 18, Dunton, Miyatake, Kaye, and Bohn teach all the limitations of claim 18 (see the 103(a) rejection to claim 16 supra), including a teaching a system wherein a stitching software program combines ('744 – col. 6 lines 45-46, lines 32-59,

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col. 7 lines 7-11) said video data in said overlap region between said initial still frame and said current still frame to provide greater image detail and increased image resolution, said stitching software program thereby generating a composite still image of said target object from said initial still frame and said current still frame ('284 col. 4 line 49 – col. 5 line 21; col. 6 line 20 – col. 7 lines 3-16 and line 43.)

Regarding claims 33 and 35-38, although the wording is different, the material is considered substantively equivalent to claims 13 and 15-18, respectively, as discussed above.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunton et al. (US 6,304,284) and Miyatake et al. (US 6,466,262), in view of Anderson (US 6,177,957.)

Regarding claim 41, Dunton and Miyatake teach similar limitations in claims 1 and 21 (please see the 103(a) rejection to claim 1 supra), however, neither Dunton nor Miyatake teach the above steps taking the form of program instructions within a computer-readable medium.

Anderson is found and is provided to teach putting operational steps, in the form of program instructions, onto a computer readable medium (col. 13 lines 33-54, col. 14 lines 25-43.) It would have been obvious to one of ordinary skill in the art at the time of the invention to transfer the steps as taught by Dunton and Miyatake, which are effectuated by processors within programmed devices, and due to their processor based execution, are employed as programmed instructions, onto a computer readable

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medium comprising program instructions as taught by Anderson, so that they may be loaded as firmware onto a device to update or restore device functionality without having to update or replace device hardware.

Allowable Subject Matter

Claims 7 and 27 are allowed as previously indicated in the Office Action dated December 1, 2005.

Claims 6, 9, 26, 29, 48 and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 6 and 26, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, a system user entering scan parameters into said video camera for performing said scanning procedure, said scan parameters including a scan speed control, a scan direction control, a still frame time interval control, a scan overlap control, and a scan resolution control.

Regarding claims 9 and 29, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, a display manager in said video camera displaying an active scan mode indicator on a user interface of said video camera during said scanning procedure, said active scan mode indicator displaying user settings for said scan parameters including a scan speed, a scan direction, and said selectable time interval.

Regarding claim 48, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, a method wherein a system user reduces said selectable time interval to create a greater overlap region and produce greater resolution characteristics in said still image.

Regarding claim 49, the prior art is not found to teach or fairly suggest, in combination with the claims from which dependence is derived, a method wherein a system user increases said selectable time interval to create a smaller overlap region and require less processing to produce said still image.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McCutchen (5,023,725) discloses overlapping to increase resolution.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen T. Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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